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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/005,697	12/07/2001	Katsuhisa Mochizuki	35.C16071	7655
5514	7590	12/02/2004	EXAMINER	
FITZPATRICK CELLA HARPER & SCINTO			LEWIS, MONICA	
30 ROCKEFELLER PLAZA			ART UNIT	
NEW YORK, NY 10112			PAPER NUMBER	
			2822	

DATE MAILED: 12/02/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/005,697

Applicant(s)

MOCHIZUKI, KATSUHISA

Examiner

Monica Lewis

Art Unit

2822

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 10 September 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 5,8,9 and 12-14 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 5,8,9 and 12-14 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 11 April 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
  - 2) ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

### **DETAILED ACTION**

1. This action is in response to the request for continued examination filed September 10, 2004.

#### ***Continued Examination Under 37 CFR 1.114***

2. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 9/10/04 has been entered.

#### ***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 5, 8 and 13 are rejected under 35 U.S.C. 103(a) as obvious over Applicant's Prior Art in view of Yasuhara et al. (U.S. Patent No. 4,987,474).

In regards to claim 5, Applicant's Prior Art discloses the following:

- a) a lead (3) of a flexible wiring film (For Example: See Figure 7);
- b) an image pickup element chip (2) electrically connected to the lead at an electrical connection point (4) (For Example: See Figure 7);
- c) a cover glass (1) for protecting a surface of the image pickup element chip (For Example: See Figure 7); and

Art Unit: 2822

d) the lead, the image pickup element chip, and the cover glass are sealed in a peripheral portion of the image pickup element chip (For Example: See Figure 7).

In regards to claim 5, Applicant's Prior Art fails to disclose the following:

a) lead has a hole formed in a portion of the lead, the portion of the lead is disposed between the electrical connection point and an outer end of the lead and a part of the hole is positioned outside the cover glass.

However, Yasuhara discloses the use of a lead (8) with part of the hole (10) positioned outside the cover (16) (For Example: See Figure 1). It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the semiconductor device of Applicant's Prior Art to include the use of a lead with a hole as disclosed in Yasuhara because it aids in enlarging the occupation area (For Example: See Column 6 Lines 29-41).

Additionally, since Applicant's Prior Art and Yasuhara are both from the same field of endeavor (semiconductors), the purpose disclosed by Yasuhara would have been recognized in the pertinent art of Applicant's Prior Art.

Finally, the following limitation makes it a product by process claim: a) "the sealant is applied so that sealant flows on the lead toward an end of the lead, wherein the sealant flowing on the lead toward the end of the lead flows all the way to the end of the lead." The MPEP § 2113, states, "Even though product -by[-] process claims are limited by and defined by the process, determination of patentability is based upon the product itself. The patentability of a product does not depend on its method of production. If the product in product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product is made by a different process." *In re Thorpe*, 227 USPQ 964, 966 (Fed. Cir. 1985)(citations omitted).

Art Unit: 2822

A "*product by process*" claim is directed to the product per se, no matter how actually made, *In re Hirao and Sato et al.*, 190 USPQ 15 at 17 (CCPA 1976) (footnote 3). See also *In re Brown and Saffer*, 173 USPQ 685 (CCPA 1972); *In re Luck and Gainer*, 177 USPQ 523 (CCPA 1973); *In re Fessmann*, 180 USPQ 324 (CCPA 1974); and *In re Marosi et al.*, 218 USPQ 289 (CAFC 1983) final product per se which must be determined in a "*product by, all of*" claim, and not the patentability of the process, and that an old or obvious product, whether claimed in "*product by process*" claims or not. Note that Applicant has the burden of proof in such cases, as the above caselaw makes clear.

In regards to claim 8, Applicant's Prior Art discloses the following:

a) at least one of a layer for preventing reflection of external light and a layer for preventing multiple reflection is formed between the lead and the cover glass (For Example: See Specification Page 2 Lines 14-27).

In regards to claim 13, Applicant's Prior Art discloses the following:

a) the lead is disposed between the electrical connection point and an area bonded to an insulating film base film (8 and 9) (For Example: See Figure 7).

In regards to claim 13, Applicant's Prior Art fails to disclose the following:

a) lead has a hole formed in a portion of the lead.

However, Yasuhara discloses the use of a lead with a hole (For Example: See Figure 1). It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the semiconductor device of Applicant's Prior Art to include the use of a lead with a hole as disclosed in Yasuhara because it aids in enlarging the occupation area (For Example: See Column 6 Lines 29-41).

Art Unit: 2822

Additionally, since Applicant's Prior Art and Yasuhara are both from the same field of endeavor (semiconductors), the purpose disclosed by Yasuhara would have been recognized in the pertinent art of Applicant's Prior Art.

5. Claim 9 is rejected under 35 U.S.C. 103(a) as obvious over Applicant's Prior Art in view of Yasuhara et al. (U.S. Patent No. 4,987,474) and Furukawa et al. (U.S. Patent No. 5,591,960).

In regards to claim 9, Applicant's Prior Art discloses the following:

a) an optical system (12) for focusing light on the image pickup apparatus (For Example: See Figure 7).

In regards to claim 9, Applicant's Prior Art fails to disclose the following:

a) a signal processing circuit for processing an output signal from said solid-state image pickup apparatus.

However, Furukawa et al. ("Furukawa") discloses the use of a signal processing circuit (For Example: See Column 5 Lines 14 and 15). It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the semiconductor device of Applicant's Prior Art to include the use of a signal processing circuit as disclosed in Furukawa because it aids in processing signal read out (For Example: See Column 4 Lines 46-67 and Column 5 Lines 1-20).

Additionally, since Applicant's Prior Art and Furukawa are both from the same field of endeavor (semiconductors), the purpose disclosed by Furukawa would have been recognized in the pertinent art of Applicant's Prior Art.

Art Unit: 2822

6. Claims 12 and 14 are rejected under 35 U.S.C. 103(a) as obvious over Applicant's Prior Art in view of Yasuhara et al. (U.S. Patent No. 4,987,474) and Mori et al. (U.S. Patent No. 5,442,229).

In regards to claim 12, Applicant's Prior Art fails to disclose the following:

a) the thickness of the lead is within the range of 18um to 35um.

However, Mori et al. ("Mori") discloses the use of a lead within the range of 18um to 35um (For Example: See Column 8 Lines 57 and 58). It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the semiconductor device of Applicant's Prior Art to include the use of a lead within the range of 18um to 35um as disclosed in Mori because it aids in the performance of the device (For Example: See Column 6 Lines 20-31).

Additionally, since Applicant's Prior Art and Mori are both from the same field of endeavor (semiconductors), the purpose disclosed by Mori would have been recognized in the pertinent art of Applicant's Prior Art.

In regards to claim 14, Applicant's Prior Art fails to disclose the following:

a) the lead has a thickness of not greater than 35um.

However, Mori discloses the use of a lead not greater than 35um (For Example: See Column 8 Lines 57 and 58). It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the semiconductor device of Applicant's Prior Art to include the use of a lead not greater than 35um as disclosed in Mori because it aids in the performance of the device (For Example: See Column 6 Lines 20-31).

Art Unit: 2822

Additionally, since Applicant's Prior Art and Mori are both from the same field of endeavor (semiconductors), the purpose disclosed by Mori would have been recognized in the pertinent art of Applicant's Prior Art.


Finally, the applicant has not established the critical nature of the following: a) the thickness of the lead is within the range of 18um to 35um; and b) lead has a thickness of not greater than 35um. "The law is replete with cases in which the difference between the claimed invention and the prior art is some range or other variable within the claims. . . . In such a situation, the applicant must show that the particular range is critical, generally by showing that the claimed range achieves unexpected results relative to the prior art range." *In re Woodruff*, 919 F.2d 1575, 16 USPQ2d 1934 (Fed. Cir.1990). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to have various ranges.

### ***Conclusion***

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Monica Lewis whose telephone number is 571-272-1838. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Amir Zarabian can be reached on 571-272-1852. The fax phone number for the organization where this application or proceeding is assigned is 703-308-7722 for regular and after final communications. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0956.

ML

November 18, 2004

  
**Mary Wilczewski**  
**Primary Examiner**